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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/394,097	09/13/1999	PAUL JOSEPH DAVIS	DAVIS-6-9-5	3702

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EXAMINER

SING, SIMON P

ART UNIT PAPER NUMBER

2645

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/394,097

Applicant(s)

DAVIS ET AL.

Examiner

Simon Sing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The corrected drawings were received on 12/23/2002. These drawings are informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "...simultaneously recording and transmitting a microphone signal and a played back pre-recorded signal to..." in lines 1-2 is confusing. It is unclear whether it is to simultaneously record and transmit a microphone signal, or to simultaneously transmit a microphone signal and a playback signal.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 5, 6, 8-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacca US 5,692,042 in view of D'Agosto III, et al. US 4,790,002.

3.1 Regarding claim 1, Sacca discloses a voice messaging system with speakerphone capability in figure 1. The transmit path of Sacca's system comprising:

a microphone signal from a microphone 127 (column 8, lines 26-29);

a gain module 128;

a message playback signal relating to a pre-recorded voice message (column 8, lines 7-11, 39-41); and

a summer (summing amplifier 142; column 8, lines 39-43) in said transmit path;

Sacca teaches that in the speakerphone mode, switches 122 and 136 are closed (column 10, lines 21-22; column 8, lines 36-41) so that the playback voice message is combined with signals from microphone 127 (figure 1), and individual users at either end can hear said played back voice message (switches 118 and 134 are closed) and concurrently converse with one another as desired.

Sacca fails to teach a recording module for recording incoming voice signal during a telephone conversation.

However, D'Agosto discloses a speakerphone with message playback and recording capability in figures 1-4. D'Agosto teaches that a record/playback module 50 comprises a playback module and a recording module (column 10, lines 31-34), for

playing back a voice message over a telephone line (column 17, lines 28-38), or for recording a live telephone conversation (column 10, lines 55-60; column 17, lines 38-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of D'Agosto so that the tape player of Sacca would have included a recording module, because such a modification would have enabled a user to record voice messages for playback and to record live telephone conversations.

3.2 Regarding claim 2, the Sacca reference, modified by D'Agosto, further comprising a gain module 120 between said message playback signal and said summer.

3.3 Regarding claim 5, the Sacca reference, modified by D'Agosto, further comprising a switch loss echo suppression module 147.

3.4 Regarding claim 6, the Sacca reference, modified by D'Agosto, wherein:
said message playback signal is combined in said transmit path at a point after said switch loss echo suppression module 147 (figure 1).

3.5 Regarding claim 8, the Sacca reference, modified by D'Agosto, further comprising:

a transmit voice activity detector 154 in communication with said transmit path, said transmit voice activity detector indicating a transmit condition of said speakerphone (column 8, line 63 to column 9, line 6).

3.6 Regarding claim 9, the Sacca reference, modified by D'Agosto, wherein:

said voice messaging system is a telephone answering device (column 8, lines 7-9; column 13, lines 42-47).

3.7 Regarding claim 10, Sacca discloses a method of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

establishing a telephone call (column 7, lines 23-33);

initiating a transmit function of a speakerphone generating a microphone signal (column 7, lines 23-27);

playing back a voice message pre-recorded on said speakerphone generating a playback message signal (column 8, lines 7-12);

combining said microphone signal with said playback message signal; and

transmitting said combined microphone signal and playback signal to a far end party over a telephone line (column 8, lines 7-12, 26-49).

Sacca teaches that said playback voice message is combined with a microphone signal, when the switches 118 and 134 are closed in a speakerphone call (switches 122 and 136 are also closed; see column 10, lines 21-22; column 8, lines 36-41), a

combined signal of microphone signal (from microphone 127) and a playback voice signal is transmitted to the far end party.

Sacca fails to teach recording a telephone conversation.

However, D'Agosto discloses a speakerphone with message playback and recording capability in figures 1-4. D'Agosto teaches that a record/playback module 50 comprises a playback module and a recording module (column 10, lines 31-34), for playing back a voice message over a telephone line (column 17, lines 28-38), or for recording a live telephone conversation (column 10, lines 55-60; column 17, lines 38-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of D'Agosto so that the tape player of Sacca would have included a recording module, because such a modification would have enabled a user to record voice messages for playback and to record live telephone conversations.

3.8 Regarding claim 15, Sacca discloses a system of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

means for establishing a telephone call (column 7, lines 23-33);

means for initiating a transmit function of a speakerphone generating a microphone signal (column 7, lines 23-27);

means for playing back a voice message pre-recorded on said speakerphone generating a playback messaging signal (column 8, lines 7-12);

means for combining said microphone signal corresponding with said playback message signal (column 8, lines 7-12, 26-49); and

means for transmitting said combined microphone signal and playback signal to a far end party over a telephone line (column 8, lines 7-12, 26-49).

Sacca teaches that said playback voice message is combined with a microphone signal, when the switches 118 and 134 are closed in a speakerphone call (switches 122 and 136 are also closed; see column 10, lines 21-22; column 8, lines 36-41), a combined signal of microphone signal (from microphone 127) and a playback voice signal is transmitted to the far end party.

Sacca fails to teach means for recording a telephone conversation.

However, D'Agosto discloses a speakerphone with message playback and recording capability in figures 1-4. D'Agosto teaches that a record/playback module 50 comprises a playback module and a recording module (column 10, lines 31-34), for playing back a voice message over a telephone line (column 17, lines 28-38), or for recording a live telephone conversation (column 10, lines 55-60; column 17, lines 38-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sacca reference with the teaching of D'Agosto so that the tape player of Sacca would have included a recording module,

because such a modification would have enabled a user to record voice messages for playback and to record live telephone conversations.

4. Claims 3, 4, 11-14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacca US 5,692,042 in view of D'Agosto III, et al. US 4,790,002 and further in view of Li US 5,612,996.

4.1 Regarding claim 3, the Sacca reference, modified by D'Agosto, discloses a message gain module 120 according to claim 2, but fails to teach that the gain module comprises an automatic gain control (AGC) portion and a fixed gain portion.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an AGC portion 136 and a fixed gain portion 138 in a receive path.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Sacca reference, which was modified by D'Agosto, with the teaching of Li so that the gain module would have comprised an AGC portion and a fixed gain portion, because such a modification would have enabled the system to maintain a pre-determined, fixed input signal level to the summing amplifier 142.

4.2 Regarding claim 4, the Sacca reference, modified by D'Agosto, discloses a gain module 128 in the transmit path according to claim 1, but fails to teach that the gain module comprises an automatic gain control (AGC) portion and a fixed gain portion.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an AGC portion 120 and a fixed gain portion 132 in a transmit path.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Sacca reference, which was modified by D'Agosto, with the teaching of Li so that the gain module would have comprised an AGC portion and a fixed gain portion, because such a modification would have enabled the system to maintain a predetermined, fixed input signal level to the summing amplifier 142.

4.3 Regarding claims 11 and 16, the Sacca reference, modified by D'Agosto, discloses a microphone gain module 128 in the transmit path according to claim 10 and claim 15, but fails to teach that the microphone gain module 128 has an adjustable gain.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an adjustable gain amplifier 122 (similar to gain module 232 of figure 2a; column 5, lines 61-65; column 6, lines 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Sacca reference, which was modified by D'Agosto, with the teaching of Li so that the microphone gain module would have

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comprised an adjustable gain module, because such a modification would have enabled the speakerphone to adjust the microphone's signal to a desirable level in the transmit path.

4.4 Regarding claims 12 and 17, the Sacca reference, modified by D'Agosto, discloses a playback message gain module 120 in the transmit path in figure 1, but fails to teach that the message gain module 120 has an adjustable gain.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an adjustable gain amplifier 138 (similar to gain module 256 of figure 2a; column 5, lines 61-65; column 6, lines 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Sacca reference, which was modified by D'Agosto, with the teaching of Li so that the playback message gain module would have comprised an adjustable gain module, because such a modification would have enabled the speakerphone to adjust the playback message's signal to a desirable level at the input of summing amplifier 142.

4.5 Regarding claims 13 and 18, the Sacca reference, modified by D'Agosto, discloses a summing amplifier 142 in the transmit path in figure 1, but fails to teach that the summing amplifier 142 has an adjustable gain.

However, Li discloses a speakerphone with line echo canceller in figure 1. Li teaches that a gain module comprises an adjustable gain amplifier 122 (similar to gain module 232 of figure 2a; column 5, lines 61-65; column 6, lines 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Sacca reference, which was modified by D'Agosto, with the teaching of Li so that the summing amplifier would have comprised an adjustable gain module, because such a modification would have enabled the speakerphone to adjust the gain of a combined signal to a desirable level to be coupled to a telephone line.

4.6 Regarding claims 14 and 19, the Sacca reference, modified by D'Agosto and Li, Sacca further discloses that combining occurs at a point (summing amplifier 142) in a transmit path after a gain of said microphone signal is adjusted.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sacca US 5,692,042 in view of D'Agosto III, et al. US 4,790,002 and further in view of Knuth et al. US 5,768,349 and further in view of Li US 5,646,990.

The Sacca reference, modified by D'Agosto teaches using a switched loss module in the transmit path, but fails to teach using a digital to analog converter (D/A converter) at a point after said switched loss module.

However, Knuth discloses digital telephone answering device (TAD) with speakerphone capability (column 4, lines 35-38; column 8, lines 44-55), and Li discloses

a digital speakerphone wherein a D/A converter 256 is at a point after a transmit AGC module 240 and transmit scale factor 251 (figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Sacca reference, which was modified by D'Agosto, with the teaching of Knuth and Li, so that the Sacca's system would have been a digital TAD and a D/A converter would be at a point after the switched loss module, because such a modification would have upgraded the Sacca reference from analog to digital.

Response to Arguments

6. Applicant's arguments with respect to claim 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Gleeman et al. US 5,454,036, discloses a telephone message playback and recording system.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

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S.S.

02/26/2003

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SUPERVISORY PATENT EXAMINER
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